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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte D'ARCY M. TYRRELL III, ANNE P. WAGNER,
DAVID WITTERS, RICHARD A. PETERSEN,
and DAVID LEASE

Appeal 2009-000450
Application 09/609,046
Technology Center 2400

Decided: September 14, 2009

Before LANCE LEONARD BARRY, HOWARD B. BLANKENSHIP, and
STEPHEN C. SIU, *Administrative Patent Judges*.

BLANKENSHIP, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

This is an appeal under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 1-29, which are all the pending claims. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

Invention

Appellants' invention relates to the rendering of image frames 84 (Fig. 1), submitted from a client in computer file 82, by servers on a network. In this context, "rendering" refers to generating an image from a description of the physical object and associated information. *See Abstract; Spec. 1:1-21; 9:16-27.*

Representative Claim

1. A computerized method for rendering images, comprising:
 - receiving from a client a render job having an associated job profile and a plurality of frames in an animation sequence ;
 - distributing via a communications medium a first frame of the animation sequence to a first one of a plurality of render servers and a second frame of the animation sequence to a second one of the plurality of render servers based at least in part on the job profile, the first and second frames being different;
 - rendering the first and second frames concurrently at the first and second render servers;
 - forwarding the rendered first and second frames to a network storage system for retrieval by the client;
 - providing one or more samples of the rendered first or second frames for the render job to the client prior to completion of rendering the first or second frame by the first and second servers;
 - receiving an input from the client in response to the one or more samples.

Prior Art

Cajolet 6,192,388 B1 Feb. 20, 2001

David J. Hancock, et al., *Distributed Parallel Volume Rendering on Shared Memory Systems*, Proc. International Conference and Exhibition on High-Performance Computers and Networks (HPCN Europe 1997) (“Hancock”).

Examiner’s Rejections

Claims 1-29 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.

Claims 1-29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Cajolet and Hancock.

PRINCIPLES OF LAW -- § 112 WRITTEN DESCRIPTION

To comply with the “written description” requirement of 35 U.S.C. § 112, first paragraph, an applicant must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention. The invention is, for purposes of the “written description” inquiry, whatever is now claimed. *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64 (Fed. Cir. 1991).

One shows “possession” by descriptive means such as words, structures, figures, diagrams, and formulas that fully set forth the claimed invention. *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1572 (Fed. Cir. 1997). The invention claimed does not have to be described in *ipsis verbis* in order to satisfy the written description requirement. *Union Oil Co. v. Atlantic Richfield Co.*, 208 F.3d 989, 1000 (Fed. Cir. 2000).

ANALYSIS -- WRITTEN DESCRIPTION

The Examiner finds that each of the independent claims contains a limitation that is not described in the Specification. The limitation is expressed in claim 1 as “providing one or more samples of the rendered first and second frames . . . prior to completion of rendering the first or second frame by the first and second servers.” Ans. 3 (omission in original).

Appellants submit that the language is supported by three instances in the Specification. App. Br. 10. However, only one of the indicated sections (Spec. 34:1-7) might support the language in controversy, which we reproduce below in context.

In general, a client may submit a render job to schedule server 556 [Fig. 11] of local site 500, which then outsources the rendering job to one or more remote sites, such as remote site 502, via a network connection, such as network 530. Remote site 502, or a combination of remote sites, then processes the rendering jobs and returns the rendered jobs to NFS 558 at local site 500 where it may be accessed by client 504. *Additionally, because jobs that are outsourced to remote sites are frequently large, remote site 502 may send client 504 a periodic communication, such as an email, that advises the client of the job status and in some cases samples of the rendered job so that a job may be canceled if the results are not satisfactory.*

Spec. 33:26 - 34:7 (emphasis added).

The Examiner submits, however, that the disclosure “simply does not describe providing samples of individual frames.” Ans. 17. The Examiner further submits that claim 1 requires providing the sample(s) prior to completion of rendering either frame, which is not consistent with what

Appellants allege the claim to mean -- providing a sample of one frame prior to completion of rendering a second frame at a second location. *Id.*

We agree with the Examiner to the extent that the three “or’s” and the single “and” of the claim 1 recitation in controversy do not aid in distinctly setting forth the subject matter that is claimed. However, the rejection before us is for lack of § 112 written description.

For the purposes of this appeal, we will interpret the language of the “providing” step of claim 1 consistent with Appellants’ wishes. The claim 1 recitation may be met in the instance that “a sample of a rendered frame may be provided to the client from one render server prior to completion of a rendered frame from another render server.” App. Br. 10. Since the “job” in Appellants’ Specification contains frames that are of interest to the user at the client, samples of the rendered job would inherently contain frames. Further, when different jobs are submitted to different servers, the jobs would not necessarily progress at the same rate on the respective servers. Although not expressly described in Appellants’ Specification, a sample of a rendered frame may be provided to the client from one render server prior to completion of a rendered frame from another render server.

We thus disagree with the finding (Ans. 17-18) that Appellants’ Specification fails to describe providing samples of individual frames at any time. We do not sustain the rejection of claims 1-29 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.

Claim Groupings

Based on Appellants' arguments in the Appeal Brief, we will decide the appeal with respect to the § 103(a) rejection on the basis of claim 1. *See* 37 C.F.R. § 41.37(c)(1)(vii).

FINDINGS OF FACT -- PRIOR ART

Cajolet

Cajolet describes a system in which computers on a network may be assigned image frames for rendering. Col. 5, l. 54- col. 6, l. 8. *See also* Examiner's findings at Ans. 4-5.

Hancock

Hancock teaches providing to a user a low resolution preview of an image that is being rendered. Hancock at 3, § 2.1; Fig. 8.

PRINCIPLES OF LAW -- OBVIOUSNESS

The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, and (3) the level of skill in the art. *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966). The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results. *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 416 (2007).

What a reference teaches is a question of fact. *In re Baird*, 16 F.3d 380, 382 (Fed. Cir. 1994); *In re Beattie*, 974 F.2d 1309, 1311 (Fed. Cir. 1992). The presence or absence of a motivation to combine references in an

obviousness determination is a pure question of fact. *In re Gartside*, 203 F.3d 1305, 1316 (Fed. Cir. 2000).

The references of record can indicate the level of skill in the art. *See In re GPAC, Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (USPTO board did not err in adopting the approach that the level of skill in the art was best determined by the references of record).

Non-obviousness cannot be established by attacking references individually where the rejection is based upon the teachings of a combination of references. *In re Merck & Co.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986) (citing *In re Keller*, 642 F.2d 413, 425 (CCPA 1981)).

A person of ordinary skill is a person of ordinary creativity, not an automaton. *KSR*, 550 US at 421. The analysis under § 103 presumes not only common sense, but also skill in the art. *See In re Sovish*, 769 F.2d 738, 743 (Fed. Cir. 1985).

ANALYSIS -- OBVIOUSNESS

The Examiner finds that Cajolet teaches all of claim 1 except for the step of providing samples of the rendered frames to the client prior to completion of the rendering. The rejection turns to Hancock, which teaches providing samples of an image prior to completion of rendering. The Examiner finds that it would have been obvious to provide a preview of a frame in progress to the client. Ans. 4-5. The Examiner further finds that Hancock teaches providing image previews for timely evaluation of the images. *Id.* at 18.

We refer to the Answer for a complete response to each of the arguments submitted by Appellants in support of non-obviousness.

However, we will briefly address the main points or allegations submitted by Appellants.

Appellants allege that the Examiner has failed to provide an “objective reason” that would have prompted one of ordinary skill in the art to combine the teachings of Cajolet and Hancock. App. Br. 11-12. We disagree, as the Examiner’s reasons for finding a motivation to combine the teachings are supported by the references. Hancock teaches, in essence, providing a “progress report” with respect to an image being rendered, which the artisan would have recognized as a benefit in the Cajolet system. The user might, for example, abort the rendering of an image when the progress report indicates the image is not approaching the intended product, thus saving the time and expense of needless further processing of the image and associated information as submitted by the client.

Appellants also allege that a “reasonable expectation of success” has not been shown. App. Br. 12. The reasoning in support of the allegation is that the Cajolet system is described as receiving “complete rendered image data,” and would “think” that low-resolution samples are completed rendered images and treat them as such. *Id.* at 12-13. In view of the level of skill in the art as demonstrated by the references, we are not persuaded that the artisan would be unable to program machines to distinguish between low-resolution samples and complete rendered image data.

Finally, Appellants allege that the proposed combination fails to teach or suggest the “providing” and “receiving” steps of instant claim 1. App. Br. 13-14. Appellants’ argument in support of the allegation, however, points to admitted deficiencies of each reference, taken alone, which is not persuasive of error in the Examiner’s rejection.

We therefore are not persuaded of error in the rejection of claim 1 under 35 U.S.C. § 103(a). We sustain the rejection of claim 1. Claims 2 through 29 fall with claim 1.

DECISION

The rejection of claims 1-29 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement is reversed.

The rejection of claims 1-29 under 35 U.S.C. § 103(a) as being unpatentable over Cajolet and Hancock is affirmed.

Extensions of time are governed by 37 C.F.R. § 1.136(b). *See* 37 C.F.R. § 41.50(f).

AFFIRMED

msc

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